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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,865	09/30/2003	Toshiyuki Miyabayashi	U 014833-7	1874

7590 11/16/2006  
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EXAMINER

SHOSHO, CALLIE E

ART UNIT PAPER NUMBER

1714

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/675,865

**Applicant(s)**

MIYABAYASHI, TOSHIYUKI

**Examiner**

Callie E. Shosho

**Art Unit**

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-31 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. All outstanding rejections except for those described below are overcome by applicant's amendment filed 8/18/06.

It is noted that Nakamura et al. (U.S. 2003/0195274) is no longer applied against the present claims in light of applicant's proper statement of common ownership.

**Claim Rejections - 35 USC § 103**

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-12 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. (U.S. 5,415,964) in view of Mishina et al. (U.S. 6,511,534)

The rejection is adequately set forth in paragraph 5 of the office action mailed 2/13/06 and is incorporated here by reference.

4. Claims 1-8, 10-17, 21-22, and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 2001/96483 in view of Mishina et al. (U.S. 6,511,534).

The rejection is adequately set forth in paragraph 6 of the office action mailed 2/13/06 and is incorporated here by reference.

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5. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 2001/96483 in view of Mishina et al. as applied to claims 1-8, 10-17, 21-22, and 26-31 above, and further in view of Miyabayashi (U.S. 6,602,333) and JP 10-046073.

The rejection is adequately set forth in paragraph 7 of the office action mailed 2/13/06 and is incorporated here by reference.

6. Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 2001/96483 in view of Mishina et al. as applied to claims 1-8, 10-17, 21-22, and 26-31 above, and further in view of Miyabayashi et al. (U.S. 6,271,285).

The rejection is adequately set forth in paragraph 8 of the office action mailed 2/13/06 and is incorporated here by reference.

7. Claims 1-2, 4-9, 11, 15-17, 22, 26, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Vincent et al. (U.S. 2004/0157956) in view of Mishina et al. (U.S. 6,511,534).

The rejection is adequately set forth in paragraph 9 of the office action mailed 2/13/06 and is incorporated here by reference.

8. Claims 27-28 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vincent et al. in view of either Nakamura et al. or Mishina et al. as applied to claims 1-2, 4-9, 11, 15-17, 22, 26, and 29 above, and further in view of WO 2001/96483.

The rejection is adequately set forth in paragraph 10 of the office action mailed 2/13/06 and is incorporated here by reference.

• **Response to Arguments**

9. Applicant's arguments filed 8/18/06 have been fully considered but they are not persuasive.

Specifically, applicant argues that none of the cited prior art, namely, Hayashi et al., WO 2001/96483, or Vincent et al., which are each utilized in combination with Mishina et al., is relevant against the present claims given that none of the references discloses pigment coated with polymer comprising a repeating structural unit derived from a cationically polymerizable surface active agent and a repeating structural unit derived from anionically polymerizable surface active agent.

It is agreed that there is no disclosure in Hayashi et al., WO 2001/96483, Vincent et al., or Mishina et al. of pigment coated with both cationically polymerizable surface active agent and anionically polymerizable surface active agent.

However, it is noted that while one embodiment of the present claims requires pigment coated with polymer comprising both cationically polymerizable surface active agent and anionically polymerizable surface active agent, in another embodiment, the present claims require pigment coated with polymer comprising cationically polymerizable surface active agent and hydrophilic monomer having an anionic group. That is, given that the present claims require pigment coated with polymer comprising a repeating structural unit derived from cationically polymerizable surface active agent and a repeating structural unit derived from an anionically polymerizable surface active agent **and/or** a hydrophilic monomer having an anionic group, it is clear that the present claims encompass pigment coated with polymer comprising (i) a repeating structural unit derived from a cationically polymerizable surface active agent and a repeating

structural unit derived from an anionically polymerizable surface active agent or (ii) a repeating structural unit derived from a cationically polymerizable surface active agent, a repeating structural unit derived from an anionically polymerizable surface active agent, and hydrophilic monomer having anionic group or (iii) a repeating structural unit derived from a cationically polymerizable surface active agent and hydrophilic monomer having anionic group. It is the examiner's position that the prior art of record meets the requirements of embodiment (iii).

Applicants also argue that there is no disclosure in Hayashi et al. of any type of polymerizable surfactant. However, it is noted that col.5, lines 7-8 of Hayashi et al. disclose the use of 2-hydroxy-3-methacryloyloxypropyltrimethylammonium salt which is identical to the cationically polymerizable monomer utilized in the present invention.

Thus, given that Hayashi et al., WO 2001/96483, or Vincent et al. any of which in view of Mishina et al. disclose pigment coated with a repeating structural unit derived from a cationically polymerizable surface active agent and a hydrophilic monomer having an anionic group, it is the examiner's position that all the rejections of record meet the requirements of the present claims and thus, remain relevant against the present claims.

### **Conclusion**

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sakai et al. (U.S. 7,008,977) disclose ink comprising (i) either pigment coated with water-insoluble polymer which is then encapsulated with copolymer of polymerizable surfactant and co-monomer or (ii) treated pigment which is then encapsulated with polymerizable surfactant and co-monomer, however, there is no disclosure that the pigment has anionic group on its surface as presently claimed.

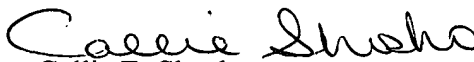
Yatake et al. (U.S. 7,030,174) disclose ink comprising pigment encapsulated with polymer or pigment having anionic group on its surface, however, there is no disclosure of pigment having anionic group on its surface that is encapsulated by polymer as presently claimed.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
11/11/06